

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
ASSISTANT SECRETARY FOR HOUSING-FEDERAL HOUSING COMMISSIONER

Series and Series Number: (Supersedes
issue dated August 6, 1972)

TO: DIRECTORS, HOUSING DIVISION
DIRECTORS, MULTIFAMILY DIVISION
DIRECTORS, SINGLE FAMILY DIVISION

MATERIALS RELEASE NO. 1074d

ISSUE DATE: July 3, 1996

REVIEW DATE: July 3, 1999

SUBJECT: 1. Product Wire-Tex Stucco System

2. Name and Address of Manufacturer Highland Products, Inc.
43 N 48th Avenue
Phoenix, AZ 85043

Data on the nonstandard product described herein have been reviewed by the Department of Housing and Urban Development and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

This Materials Release cannot be used as an indication of endorsement, approval or acceptance by HUD of the described product, and any statement or representation, however made, indicating such approval, endorsement or acceptance by HUD is unauthorized. See Code 18, U.S.C. 709.

Any reproduction of this Release must be in its entirety.

USE: A combination insulation and wall finish system for application to exterior walls.

DESCRIPTION:

The Wire-Tex system is a five component system which consists of a substrate, polystyrene insulation board, metal lath, fiber glass reinforced stucco exterior coating, and joint systems including caulks and sealants. The exterior coating is a minimum of 3/8" thick.

GENERAL CONDITION:

The Wire-Tex system shall be designed and built in accordance with Highland Products, Inc. specification and typical details except where modified by this Materials Release (MR). The system shall be installed by an applicator who is approved by Highland Products, Inc. Highland Products, Inc. shall be responsible for certifying that the polystyrene insulation board which is installed meets the specifications of this MR. Highland Products, Inc. shall maintain a current list of approved sealant systems which are compatible with the Wire-Tex system, and shall certify that the sealant is in compliance with the Highland Products, Inc. sealant requirements. The Wire-Tex system shall be in compliance with Table 1.

Highland Products, Inc. shall certify that the specified substrate is suitable for the application of the system. All joints shall be designed and constructed on the assumption that a leak can occur in the primary seal. A secondary seal or other defense against leaks shall be provided together with a built-in means of disposing of the leakage.

TABLE 1 Requirements for Wire-Tex Stucco System

<u>Material Requirements (if used)</u>	<u>Values</u>	<u>Test Method</u>
Fiber cement board or	compliance	ASTM C-1186
Gypsum Sheathing	compliance	ASTM C-79
Metal lath	compliance 1" x 20 ga. acceptable	FED QQ-L-101C
Polystyrene foam insulation board	compliance	ASTM C-578
Density, minimum	1.5 lbs/cu. ft.	ASTM C-578
Thickness, minimum	1 inch	ASTM C-578
Flammability, maximum	25 flame spread	ASTM E-84
Sand	compliance	ASTM C-144
Caulks and sealants, minimum	Type S Grade NS 20 year warranty	ASTM C-920
Mechanical fasteners, minimum psi	296 pulling strength	ASTM E-606
Portland cement	Type I, II-I, or II	ASTM C-150
Finish pigments	UV stable 2000 hrs	ASTM G-23
Coating Thickness	3/8" minimum	ASTM C-150
<u>System Requirements</u>	<u>Values</u>	<u>Test Method</u>
Wind loading	no damage at 50 psf	ASTM E-330
Surface impact	no damage with 30 lb weight at 6 ft.	ASTM E-695

Flammability, maximum	6 ft. flame height	ASTM E-108
Fungus resistance	no growth	MIL 810B
Wind driven rain	no water break	MIL TTC555B
Freeze-thaw	no cracks 60 cycles	EIMA test

EIMA Test Requirement:

Three samples 4" x 8" x 1" are paraffin wax coated on the edges and the back and immersed in 25° Centigrade water for 4 days. The samples are surface dried for 1 hour at 25° Centigrade and then subjected to 60 cycles of freeze-thaw with each cycle 2 hours at -18° Centigrade and 2 hours at 25° Centigrade. The samples are inspected for cracks.

APPLICATION REQUIREMENTS:

The Wire-Tex finish is an acrylic latex based material containing quartz and marble aggregate, and shall be applied at the rate of 4 gallons/100 sq. ft.

The mixture is composed of 80 lbs. of acrylic latex material added to 5 gallons of water and 215 pounds of sand.

INSTALLATION:

1. The installation of the Wire-Tex stucco system shall be in accordance with the manufacturers installation instructions. The system shall be installed by applicators that have been approved by the manufacturer.
2. The system shall be delivered to the job site in packages with the name of the manufacturer, address, installation instructions, compliance to this MR and with a warranty statement.
3. The substrate surface shall be determined by the manufacturer, to be free of release agents and other residues and in all other ways suitable for application of the system. The system shall only be applied to those substrates approved by the manufacturer.
4. No additives, or materials of any kind, such as binders, antifreeze agents, accelerators, fillers, etc. except specified amounts of clean water, shall be allowed unless specifically approved by the manufacturer.

5. The ambient temperature shall be 5° Centigrade or greater and rising at the time of application but not greater than 38° Centigrade and shall remain so for at least 24 hours thereafter. The manufacturer shall be responsible for making any disputed determinations.
6. The polystyrene board shall not be used in contact with chimneys or other surfaces which could heat the board to a temperature greater than 65° Centigrade. Provide clearance from heat sources in conformance with the National Fire Protection Association publication NFPA No. 89M.
7. The polystyrene insulation board shall be coated so that no portion is exposed. The requirements shall be carefully observed at the base of the insulation, around all doors and windows, around all wall penetrations for utilities and other wall penetrations or openings.
8. All areas where the system joins other materials or terminates shall be protected from moisture intrusion with a product or method specified by manufacturer. The surfaces to receive sealant and sealant prime coat shall cure a full, 14 to 21 days, prior to installation of sealant prime coat and sealant.
9. All joints shall be made so that the caulking and sealing cements can be removed and replaced. The sealant shall have a 20 year performance warranty. It should be noted that the caulks and sealants have to be periodically replaced by the owner or as specified by the manufacturer depending on the conditions of caulks, sealant or adhesive.
10. No sealant shall be applied to the EFIS system until it has previously cured 14 to 21 days. Backer rod may be installed to prevent water intrusion during curing.
11. The exterior cementitious coating shall be applied in one coat to a minimum 3/8 inch thickness. The metal lath shall be embedded in the coating. Fasteners for lath shall penetrate 1 inch minimum into wood studs. Flashing, corner reinforcement, and metal trim shall be installed as set forth by Highland Products, Inc. The stucco shall be applied at ambient temperature ranging from 5° Centigrade to 65° Centigrade by applicators approved by Highland Products, Inc. Woven wire, 1 inch, 20 gauge galvanized stucco netting lath shall be applied tightly over substrate using 11 gauge galvanized roofing nails with 1/2 inch head spaced 6" on center or 16 gauge, 1 3/4 inch long galvanized staples spaced six inches on center with a minimum one inch penetration.

Staples shall have a minimum crown width of 1/2 inch. Care shall be taken to avoid over-driving fasteners. Lath shall be applied with 1/2 inch end and side laps. Lath shall be pulled tight so it will be flat against the substrate.

CERTIFICATION:

The system shall be installed by a company whose applicators have been trained and approved by Highland Products, Inc. Highland Products, Inc. shall furnish the company with a certificate stating that the company is qualified to perform the work of installing the Wire-Tex system. Highland Products, Inc. shall provide the local HUD Office, the owner and the builder with a list of approved applicators on request. Highland Products, Inc. shall provide a copy of all certifications required by this MR to the owner and to the local HUD Office.

MANUFACTURER'S WARRANTY:

Highland Products, Inc. shall warrant the Wire-Tex system for 20 years against faulty performance. The warranty shall include correction of delamination, chipping, denting, peeling, blistering, flaking, bulging, unsightly discoloration and other serious deterioration of the system. Should any such defects occur, Highland Products, Inc. shall make a prorata allowance for replacement, or pay the owner the amount of the allowance. Highland Products, Inc. shall not be liable for damages or defects resulting from misuse, natural catastrophes (other than hail), casualty or other causes beyond the control of Highland Products, Inc.

The installation of the Wire-Tex system shall be in accordance with the Highland Products, Inc. application instructions and the plans and specifications approved by Highland Products, Inc. If Highland Products, Inc. finds that the installation deviates significantly from the application instructions and the approved plans and specification, Highland Products, Inc. shall notify the owner, HUD and the builder that the installation is not satisfactory.

A copy of the warranty shall be given to the owner and to the local HUD Office upon completion of the property.

This warranty does not relieve the builder, in any way, of responsibility under the terms of the Builder's Warranty required by the National Housing Act, or under any provisions applicable to any other housing program.

MANUFACTURER'S RESPONSIBILITIES:

Issuance of this Materials Release (MR) commits the manufacturer to fulfill, as a minimum, the following:

1. Produce, label and certify the material, product or system in strict accordance with the terms of this MR.
2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance or failure reported by HUD.
3. When requested, provide the Office of Consumer and Regulatory Affairs, HUD Headquarters, with a representative list of properties, in which the material, product or system has been used, including complete addresses or descriptions of locations and dates of installation.
4. Inform HUD in advance of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

EVALUATION:

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for a renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision shall be sent to HUD Headquarters. Appropriate user fees shall be sent to:

U. S. Department of Housing and Urban Development
Technical Suitability of Products Fees
P. O. Box 954199
St. Louis, MO 63195-4199

The holder of this MR may apply for revision at any time prior to the Review Date. The revision may be in the form of a supplement to the MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

CANCELLATION:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of the MR. HUD will notify the manufacturer that the MR may be canceled when:

1. conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product, or system,
2. the manufacturer has changed its organizational form without notifying HUD, or
3. the manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a written notice of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be canceled. No refund of fees will be made on a canceled document.

This Materials Release is issued solely for the captioned firm,
and is not transferable to any person or successor entity.
